UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IV
345 COURTLAND STREET
ATLANTA, GEORGIA 30365

MAY 9 1988

4WD-SFB

Mr. Les Oakes
King & Spalding
2500 Trust Company Tower
Atlanta, GA 30303

Re: Comments on Draft Work Plan for the Medley Farms Proposed Superfund Site

Dear Mr. Oakes:

Five copies of the above referenced documents prepared by Sirrine Environmental Consultants (SEC) for the Potentially Responsible Parties were received by the Agency on March 30, 1988. As part of Superfund's review process, copies of these documents were transmitted to various programs within the Agency as well as to the South Carolina Department of Health and Environmental Control (SCDHEC) for review and comments.

I am planning to arrange a day visit to the Site for EPA personal and our contractor for the week of May 16. This will afford us an opportunity to gain first-hand knowledge of the Site as well as the terrain of the area prior to approving the revised work plan. I would like to have a representative of SEC accompany us if feasible as well as anyone else who shows an interest. I will contact SEC directly, at a later time, when I have more specific details for the trip.

This document was developed to direct the Remedial Investigation and Feasibility Study (RI/FS) process for the Medley Farm Site. After the Steering Committee and SEC have had an opportunity to review the enclosed comments, the Agency encourages a meeting with the Steering Committee and/or CRA to discuss these comments, the data needs, and identify and review the data quality objectives associated with this Site. This meeting should occur two weeks after your receipt of these comments. All the following comments need to be addressed in the revised work plan. Following our Site visit, additional comments may be developed. The revised plan should be submitted to the Agency for approval by June 7, 1988.

I have organized the comments into three (3) categories: general, technical and editorial in nature. Within each category I listed the comments as they appeared in the text. Again, all comments and requested changes stated below need to be incorporated into the revised work plan.

The following are the general oriented comments.

1. Page 4, Figure 2.1: Need a better copy of this map. It is difficult, if not impossible, to trace some of the features (ie., streams, creeks). Map needs orientation arrow identifying which direction is north and the maps publication date or date of most recent revision.

2. Page 7, Section 2.1.4: Need to show calculations for evapo-transpiration rate as well as being more specific about the source of information. This information should be referenced.

3. Pages 7 and 8, Section 2.2: It would be helpful if more information could be added to this section.

4. Page 8, top of page, the second to the last sentence of Section 2.2: This sentence is confusing. It would read better if this sentence was either combined with the previous sentence or modified. A figure associated with this section would be helpful to the reader to visualize where wastes were disposed of on the Site.

5. Page 8, second paragraph: The results of the drum and especially for the soil analyses should be tabularized. A list of all compounds detected and their concentrations should also be entered into this table.

6. Page 8, third paragraph: The types of samples and the analytical results for the samples collected by EPA also need to be added in tabular form.

7. Page 9, second paragraph, first sentence: I am assuming that the analytical testing of the drums was done during the immediate removal. This needs to be clarified. Also, the analytical results of these samples should be included in a table.

8. Page 10, top of page: The location of this one small area where drums may be buried needs to be incorporated into Figure 2.2.

9. Page 10, second paragraph, second sentence: Cannot locate this well boring of Figure 2.2.

10. Page 10, second paragraph, third sentence: Cannot locate this monitor well on Figure 2.2.

11. Page 10, second paragraph: Both soil and groundwater samples are referred to but it is not clear as to which environmental media, soil or groundwater, the volatile organics were found.

12. Page 10, third paragraph: Four private wells are referred to in this paragraph as being sampled. This analytical data should be presented in a table and their locations should be shown on a map.

13. Page 11, Figure 2.2: The top of page 8 in the text refers to six lagoons. This figure only identifies five of them. Page 8 also identifies open pits. These should also be identified in this figure. The anomalous zones need to be more clearly labeled. And if feasible, another figure should be added with the results of the linearment study superimposed over the EM survey. The proposed monitor well locations should also be plotted on this figure.

14. Page 11, Figure 2.2: The lettering of the map and labeling of the disposal areas is difficult to decipher.

15. Page 13, third paragraph. first sentence: At what depth was this gelatinous material encountered? Where was this monitor well located?

16. Page 14, add an eighth bullet: This bullet should read something like "characterization of site geology and site hydrogeology.".

17. Page 14, add a ninth bullet: This bullet should read something like "identify and determine the nature and extent of surface water and sediment contamination.".

18. Page 14, added a tenth bullet: This bullet should read something like "proviide information required to screen remedial technologies and develop a remedial alternative.".

19. Page 17, Section 3.1 The location of the proposed topographic map will include the Site and the area on the south and east of the Site because "groundwater flow is to the south and east", according to this section. There is no data to support this conclusion, especially considering that the Sprouse well, which is northwest of the Site, is known to be contaminated. Some groundwater flow may be in this direction, and a topographical map needs to include the northwest area around the Site.

20. Page 17, Section 3.1, first paragraph: On the fifth line down, remove the second "and" and extend this sentence to read "...in the RI and any other pertinent data necessary to assess the Site." (ie., location of private wells, etc.).

21. Page 18, Section 3.2.1: Although environmental receptors may be included in this task, it should be clearly stated that both human and environmental receptors will be identified.

22. Page 18, Section 3.2.2: The fracture trace analysis, as stated in this section is to be done before monitor wells are drilled and this information will be used to "refine" well locations. The South Carolina Department of Health and Environmental Control, Bureau of Solid and hazardous Waste Management, needs to be notified of the final planned well locations, and approval from SCDHEC for well construction needs to be obtained prior to commencement of drilling.

23. Page 20, top of page, third line down: The "etc." with regards to the field log books needs to be spelled out in much greater detail so that there is no misunderstanding what is to be included in these notes.

24. Page 24, second paragraph, first sentence: The method for screening soils from the test pits with a OVA must be clearly defined in the POP.

25. Page 24, second paragraph, second sentence: It should be clearly state that the composite sample will be collected below the clean earth used as backfill material.

26. Page 25, Figure 3.3: An additional figure is needed to equate the information on Figures 3.1, 3.2 and 3.3.

27. Page 27, second paragraph, first sentence: How are these soil samples to be collected?

28. Page 28, Section 3.6.5, third paragraph: The most current edition of SW846 should be used. I believe it is the third edition dated 1986.

29. Page 34, Section 3.7.4: Please be advised that it may be necessary to containerize the water withdrawn during the pump test. This provision should be added to the work plan. And if the water is found to contain hazardous constituents, then this water will be dealt with properly.

30. Page 35, Section 3.7.5: What will determine whether or not the Sprouse well will be sample? From my understanding, their well is easily accessible and therefore, this well will be sampled.

31. Page 35, Section 3.7.6: A table needs to be added that shows all samples being collected. This table should identify where the samples are to be collected, and if appropriate, the depth, the environmental media sampled, and the type of analyzes to be ran on these samples. This table should also identify the number of anticipated splits to be made with EPA as well as the number of duplicates. This table can combine Phase I and II or have individual tables for each phase.

32. Page 40, Section 3.12: The preliminary ARARs for surface water are the Clean Water Act and, if these creeks are potential sources of potable water, the Safe Drinking Water Act.

33. Page 40, Section 3.13: A Risk Assessment needs to be incorporated into the RI report. I refer you to page 3-35 of the draft document entitled Guidance for Conducting RI/FS Under CERCLA, dated March 1988 which SEC recently copied.

34. Page 44, Section 4.1.2: Please be aware that the work at this Site including the RI/FS, Record of Decision (ROD) or Remedial Design and Remedial Activities (RD/DA) will not be separated into Operable Units.

35. Page 48, last paragraph: A sentence should be added to indicate that if a remedial alternative selected is not permanent then, the Site needs to be reevaluated in 5 years after completion of the remedial action.

36. Page 49, Section 4.4: It may be advisable to collect and conduct the necessary tests on these samples along with the environmental samples during the RI field work.

37. Page 52, first bullet: It may be appropriate to also include groundwater monitoring guidance.

38. Page 54, first paragraph: State the basis for selecting 10% as the discounting rate for the present value calculations and an inflation rate of 0%.

39. Page 58, first paragraph: The RI and FS portions of this project have been divided into two distinct section, however, to ensure all the data needed to select a remedial alternative is collected in an efficient and timely manner, it is recommended that the RI and FS be conducted in a more interactive manner.

The following are the technical oriented comments.

40. A background soil boring needs to be added.

41. At least five (5) soil samples need to be analyzed for PCB's and dioxins, as wells as a number of the groundwater and surface water/sediment samples.

42. Pages 5+6, Section 2.1.2: This section mentions that two wells were drilled on the Medley Site in 1984, and the locations of these wells need to be shown. It was assumed that, because one well was dry and the other had water at sixty-five feet, the major volume of groundwater flow away from the Site is within the bedrock aquifer. No data on productivity of bedrock wells was given to support this conclusion, and the use of two wells to characterize an entire site is unsupportable. Additionally, it is known that the bedrock aquifers are most often recharged by the saprolite aquifers, as stated in the report. Therefore, the majority of the water in the bedrock had to flow through the saprolite. Documentation of flow directions is needed in both the shallow and deeper aquifers.

43. Page 6, last paragraph: The draft work plan indicates that information will be developed during the RI to evaluate whether Jones Creek, Big Blue Branch, or Thicketty Creek act as permanent groundwater divides for both the surficial and bedrock aquifers. The document does not specify how this will be accomplished. Since this information is critical, with respect to determining the potential extent of contamination and remedial alternatives, the specific procedures and methodology not only needs to be incorporated into the work plan but should be submit to the Agency

prior to resubmitting the revised work plan for approval. This will afford the Agency an opportunity to review and comment on the proposed approach.

It is our feeling that there are not enough proposed well pairs near the streams to be able to prove whether or not the streams are flow divides. Also, contamination has likely migrated through bedrock fractures; which may not necessarily pass through the streams or which may pass under a stream; considering the effects of streams may not be helpful in predicting paths of contamination.

44. Page 9, Section 2.3, last paragraph: This section mentions the results of the electromagnetic survey completed by NUS in 1983, stating that contaminants may have migrated to the southeast, and showing, Figure 2.2, anomalous zones. The use of the electromagnetic equipment in the Piedmont area is questionable due to its sensitivity to metallic minerals such as pyrite and magnetite, commonly associated with metamorphic rocks, and due to its sensitivity to bedrock topography which was not well defined in the study. The results of the EM study should be considered as possibilities rather than probabilities.

45. Page 16, under Phase II Field Investigations: The initial assessment of the surface water and sediment should be moved from Phase II to Phase I. If contamination is found then it may be necessary to implement biological testing of surface water and/or sediment based upon the initial water quality data as well as determine the extent of contamination down stream.

46. Page 16, second bullet: What is the rationale for sampling only one pair of monitor wells? All monitor wells will be sampled and analyzed for full scans [Target Compound List (TCL)] as part of Phase I activities. This is deemed necessary since previous sampling and analysis has documented on-site groundwater contamination as well as possible off-site migration. Phase I sampling and analysis will provide information on the current nature of the on-site groundwater quality. These results can then be used to determine the number and locations of additional monitor wells, if required, for Phase II in order that the nature and extent of groundwater contamination can be defined. As a result, the requirements of 40 CFR Section 300.68(e)(2) will be met in a timely manner. Remember that a clean sample is as useful as one that shows contamination.

    The Hazardous Substance List (HSL) is now called the Target Compound List (TCL).

47. Page 20, Section 3.6.1: Major concerns are expressed in regards to this soil gas survey. Several questions arose as review of this part of the plan occurred. Before this portion can adequately be reviewed, the depth of the carbon collectors needs to be determined and the rationale for this determination. Also, the time period the collector is to be left in the soil needs to be addressed and supported. Will the ion count flux data be associated with concentration of VOC in parts per million or mg/Kg? Is this to determine or be associated with groundwater contamination or soil contamination or both?

48. Page 21, Section 3.6.1: The Petrex soil gas survey may have limited use at the Medley Farm Site. As indicated during previous drilling, most of the Site is underlain by an extensive, unsaturated, clayey saprolitic overburden, developed over metamorphic rock. Records indicate that the thickness of the unsaturated zone generally exceeds 50 feet. If migration routes from the disposal areas are primarily vertical, through the saprolite to groundwater, many of the proposed soil survey grid locations could be located a significant vertical distance, through a fine, tight-matrixed material, above the source of purgeable organic vapors (i.e., the groundwater contaminant plume). The results of this survey cannot be accepted at face value as an indication of the extent of contamination at the Site. This needs to be confirmed by the installation of deep soil borings and/or monitor wells immediately beyond the extent of contamination indicated by the gas survey. This will confirm the results of the gas survey. A reference for the sampling procedure and analytical limitations of the Petrex Soil Gas technique needs to be provided. The work plan needs to provide a general description of the sampling procedure with the specific details of the procedure provided in the Project Operations Plan (POP).

49. Page 21, Section 3.6.2: This section indicates that these pits will be excavated "in and around the former lagoon and drum storage areas". The plans are to dig pits only in the lagoons; this completely overlooks the drum areas. It has been mentioned elsewhere that suspected areas of drum burial may be subjected to a soil boring in Phase II, but it may be difficult to bore through buried drums. It is recommended that at least five pits be dug in areas of past drum storage/disposal and suspected drum storage/disposal. In general, test pits should not de done until soil gas survey results are in, for safety reasons, so that extra precautions may be taken in more hazardous areas. Plans should be made for the dimensions of the pits and for how they will be backfilled.

50. Page 22, Figure 3.1: The soil gas grid should be plotted on a better quality map such as on an enlarged topo map. The long axis of the grid pattern should coincide with the presumed direction of groundwater flow. Also, include a phrase in the text that states that the grid will be expanded if the plume boundary is determined to extend beyond the perimeter of the grid pattern.

51. Page 24, first full paragraph: This cleaning procedure appears to be insufficient if you want these samples to be considered discrete samples.

52. Page 24, Second paragraph, second sentence: The compositing of soil samples for collecting a VOA sample is not encouraged.

53. Page 24, Section 3.6.2: This section specifies that high pressure potable water will be used for cleaning the backhoe between excavations, unless residual sludges are identified in the test pits. At a minimum, cleaning of the backhoe bucket should include washing with a steam jenny, and if necessary, scrubbing it with brushes. If the bucket undergoes a less rigorous cleaning than that specified in the Region IV Engineering Support Branch Standard Operating Procedures and Quality Assurance Manual

(SOPQAM), dated April 1, 1986, standard-cleaned stainless steel scoops, spoons, or shovels must be used to dress the side of the excavation to remove soil that was in contact with the backhoe bucket prior to collecting the samples. Standard-cleaned equipment may then be used to collect the samples.

The reference to Section 1 of U.S. EPA document, SW846, dated 1982 refers only to statistical procedures for determining the number of samples to be collected from the test pits and not actual sample collection procedures. The Project Operations Plan (POP) should also reference the Region IV SOPQAM for specific sample collection and preparation procedures for compositing soils samples.

The POP should specify, step by step, the cleaning and decontamination procedures to be used for field cleaning all sampling equipment.

54. Page 24, Section 3.6.3: This section indicates that four well pairs are planned. Detailed construction details must be submitted, and wells must be drilled by a South Carolina certified well driller. Rationale for the location of MW-1 is that it is supposedly upgradient. However, the proposed location of MW-1 is between the Site and a contaminated well along a fracture trace; therefore, it may not be upgradient. Other upgradient locations should be proposed. MW-2 is supposed to be immediately downgradient of the Site, but the most contaminated part of the plume may have passed the proposed well location as the majority of the source of contamination was removed in 1983. MW-3 and MW-4 are supposed to be located on fracture traces; however, a map needs to be given which indicates the location of the fracture traces. The source of information that was used is not referenced. However, maps supplied in the 1983 report of NUS indicate one location where fractures cross on the Medley Farm Site. This would be an excellent location for a fifth well pair, which may be needed in order to completely describe the complicated groundwater flow paths on Site.

Split spoon samples should be taken from all borings and described for each five foot interval. The description should be done by a qualified geologist, and the results should be used in conjunction with soil boring information to draw several cross sections of the Medley Farm Site.

It is stated that bedrock wells will be completed twenty feet below groundwater. Provisions need to be made for failure to encounter groundwater which is a common occurrence in the Piedmont.

Well construction details in this section are not sufficient to approve well construction, and the location of the screens is unacceptable. The plans are to set the screen so that it is located five feet above the water table to ten feet below the table. Subsequently, slug tests are proposed, and a slug test in any well with five feet of screen above the water table will yield results that cannot be used. The screen must be set at least five feet below the water table to insure accurate slug tests. Drawings showing construction details of stainless steel wells are needed.

55. Page 24, last paragraph: At least two laterally segregate well nests should be located at the downgradient edge of the Site. Reliance upon one groundwater sampling location, albeit even if the sampling location consists of a monitor well nest (i.e., 2 wells screened at different intervals), is deemed insufficient to develop the Site specific parameter list which accurately reflects the population of groundwater contaminants which may be present at the Site. Use of only one sampling location would be sufficient only if data can be provided to demonstrate that the lateral distribution of Site groundwater contaminants is uniform which may be impossible if contamination has already entered the fractured bedrock.

56. Page 25, Figure 3.3: Will the groundwater level data generated from this somewhat linear orientation of monitor wells provide sufficient data to calculate the groundwater flow regime perpendicular to this linear alignment? In which direction is groundwater thought to be moving?

57. Page 26, Section 3.6.3, first full paragraph: Soil samples from a split spoon sampler should be collected continuously, or at a minimum every 5 feet, during the installation of the deeper, bedrock wells. These samples will allow the determination of the lithology underlying the Site as well as for analytical purposes.

58. Page 26, Section 3.6.3: The Region has experienced a significant drought for the past several years, which has resulted in abnormally low water levels in saprolite aquifers, particularly in recharge areas such as the Medley Farm Site. To accommodate an unusual increase in water levels that might accompany a recovery of water levels in the saprolite aquifer during the RI, it is recommended that at least one 10 foot section of stainless steel casing be added above the specified screens in the hybrid wells. This would prevent any PVC well casing from being exposed in the saturated zone should water levels rise significantly.

    The final work plan should specify all well construction materials, as well as the procedures to be used to clean them as well as for their installation.

59. Page 27, Section 3.6.3: The POP should, in the monitor well installation procedures section, include a detail description of drilling methods intended for the Site, particularly specification for auger sizes used in drilling holes in which the shallow wells will be installed. The auger sizes must reflect a consideration of other aspects of well construction, such as tremie pipe diameter. The annular space between the inside wall of the auger and the well, if the well is installed inside the augers, should be large enough to allow passage of a tremie pipe capable of adequately passing bentonite pellets. The specifications should also be very clear on the amount of time allowed for bentonite pellet hydration prior to grouting. A minimum of 8 hours should be allowed for hydration.

60. Page 28, top of page: All eight monitor wells will be sampled and analyzed for the compounds on the TCL.

61. Page 28, Section 3.6.5: This section indicates that a composite soil sample will be collected from three split-spoon intervals from the boring drilled during the installation of well MW-2. There are significant problems associated with this approach. Since the samples collected at this location during Phase I of the RI will help in developing the list of indicator parameters to be used during Phase II sampling, every effort should be made to ensure that characterization at this location is complete and representative. We anticipate that the materials that will be sampled will be clayey and, therefore, difficult to homogenize during processing of the composite of the vertical intervals sampled. If this is found to be the case, then samples collected at this location, will remain as discrete samples and not composited. Furthermore, we recommend placing the samples collected for purgeable organic analysis directly in the sample container, with a minimum of disturbance, filling the container as full as possible. All samples collected for purgeable organic analyses during the RI, whether from test pits or soil borings, should be collected and handled in this manner. We recognize not mixing the purgeable organic sample deviates from standard procedures but is necessary, in this case, to insure that a suitable sample is collected.

62. Page 29, Section 3.7.1: Procedures for cleaning the sampler needs to be provided. Also, details on duplication procedures for the split spoon is necessary for evaluation. A definition of "appreciable" in regards to contamination needs to be defined. It is possible that high levels of contamination have migrated past the fifteen foot mark and down to the twenty-five foot level. Therefore, it is not reasonable to discard the twenty-five foot sample. An OVA is helpful in detecting volatiles but not in determining if a soil sample is clean or having no appreciable contamination. Non-volatile organics, BCP's, dioxins, and heavy metals will not register on an OVA.

63. Page 29, Section 3.7.1: The reference to "proper" cleaning procedures should be changed to reference the Region IV SOPQAM standard cleaning procedures.

    The document indicates each soil sample will be preserved and placed in new, clean glass jars. Soil samples are not preserved, other than chilling to 4 degrees C. Also, the plan should specify or reference how all sample containers are to be cleaned.

    The OVA screening method proposed is technically unsound. Because of the large volume of air moved by the pump in the OVA, it is inappropriate to consider using it to sample (screen) the small volume of air in the headspace of the sample container. Enclosed is a description of a satisfactory method, identified as Section 3.1.1, which would be more appropriate, with certain modifications. Although the method described is for use in 30-inch holes, it could be modified for use in deeper holes. Comments on this method are also attached. You can adopt the attached method or submit a similar, technically sound method for review.

64. Page 29, Section 3.7.1, first paragraph: The number of soil borings to be drilled in the suspected disposal and storage areas must be adequate to delineate the horizontal and vertical extent of any residual sources of soil contamination. The work plan should state that additional borings will be drilled if the presently estimated number (12) does not provide sufficient coverage.

65. Page 29, Section 3.7.1, second paragraph: The sealing of sample jars with aluminum foil must be in such a manner as to prevent the escape of volatile organic compounds, particularly if such dilution of headspace could bring the contaminant concentration below the detection limit of the OVA.

66. Page 30, second paragraph: A percentage of the soil boring samples collected within suspected lagoon areas or other potential waste disposal areas from depths above 10 feet need to be analyzed to check the accuracy of soil gas survey, provided that these samples do not represent clean backfill material.

67. Page 31, Section 3.7.1: The document indicates that selected samples collected from below 25 feet deep will be analyzed in order of increasing depth until two consecutive samples indicate "an absence of appreciable contamination." We recommend that this criteria be changed to indicate "an absence of any detectable contamination (at minimum achievable quantification limits)."

68. Page 32, Section 3.7.2: Although it is not clearly stated, the Agency is assuming that all initial surface water and sediment samples collected to characterize these streams will be analyzed for full TCL scans.

69. Page 34, Section 3.7.4: Hydraulic testing should be done only if the well screens are appropriately set. To better characterize the groundwater flow around the Medley Farm Site, pump tests should be run on all well pairs. In a Site with so many diverse fracture patterns and variable topography, all possible information should be gathered at wells. It very well may be that the aquifers are connected in some locations and not connected in others. Location of the discharge of generated water and how it is to be treated should be delineated.

70. Page 35, Section 3.7.5: Again, all monitor wells will be sampled and analyzed for TCL.

71. Page 35, Section 3.7.6: No mention is made with regards to splitting samples with the Agency. We generally split, at a minimum, 10 percent of the samples per environmental media.

72. Page 36, Section 3.9: The section describing water level measurement and stream gauging must state that the equipment will be properly decontaminated between wells. The procedures for this and for measuring water levels and gauging streams must be included, in detail, in the POP.

73. Page 36, last paragraph: How frequently will the stream gauges be measured? Is this a Phase I or Phase II activity? They should be measured concurrently with the taking of groundwater level measurements in the monitor wells. A stream gauge measurement should also be taken at the time the surface water/sediment samples are collected. Having the stream flow would allow calculating the mass loading if contaminants are found in the stream. The details/procedures for groundwater level measuring and stream gauging must be provided in the POP. A figure needs to be included to located the gauging points.

74. Page 38, Section 3.10.1: Any equipment that will be stored for a significant period of time after cleaning (i.e., most of the day or overnight) should be covered with plastic sheeting.

75. Page 38, Section 3.10.2: All large equipment (i.e., augers, rods, tremie pipe, casing, screen, etc.) shall be placed above the ground on horses or other stands, to prevent back-splash from the ground during decontamination. We also recommend that heavy-duty plastic be placed both under the decontamination stands and in the general working area for decontamination. The plastic can be periodically sprayed (and replaced, as needed), and generally provides a much cleaner work area.

76. Page 39, Section 3.10.3: How are the boreholes to be backfilled?

77. Page 39, Section 3.12: Contaminant transport modeling proposed "as an attempt to define the potential impacts of residual contamination and to predict future dispersion and migration patterns." In addition, "special consideration will be given to the potential of Jones Creek, the Big Blue Branch, and Thicketty Creek to act as flow interceptors for the surficial and bedrock aquifers." However, the RI field investigations proposed in the work plan will not provide the data base necessary to perform such a modeling exercise. Additional information such as surface-water elevations, the existence of bedrock outcrops in streambeds, the elevations of major fracture zones in on-site monitor wells, design data on local wells, etc. will need to be acquired for both the surficial and bedrock aquifers in order to perform the proposed contaminant transport modeling.

The following are the editorial comments.

78. Page 1, first paragraph, last line: Change to read "...an Administrative Order <u>of Consent signed in January 1988</u> from...".

79. Page 3, Section 2.1.1: References providing the information given in this section need to be included.

80. Page 9, first paragraph, first sentence: State who performed the immediate emergency removal.

81. Page 12, Table 2.1: Along with the dates the samples were collected, this table should also reference the source of this data.

82. Page 14, first paragraph, sixth line down: Remove the wording "may have" and insert "has" as the analytical data collected to date including the need for an immediate emergency removal clearly indicates that contamination has occurred.

83. Page 14, second paragraph, first bullet: Change to read "...accurate topographical Site map".

84. Page 15, under Objectives of Phase I, third bullet: Change to read "...the horizontal and vertical extent...".

85. Page 15, near the bottom of the page: Change the phrase to read "Phase I Field Investigation Activities will include:".

86. Page 19, second paragraph, first sentence: Change to read "...prepared and reviewed as well as approved by the...".

87. Page 24, second paragraph, last sentence: Change to read "They will serve as...waste characterization in Phase I and will provide...parameters to be used in Phase II...".

88. Page 24, Section 3.6.3, first paragraph, last sentence: Change to read "...and a deeper, double cased bedrock well...".

89. Page 25, Figure 3.3: This figure needs an orientation arrow identifying the northerly direction.

90. Page 27, second paragraph, first sentence: What is being implied by stating "the first boring at each well pair..."? I am assuming you are referring that the first boring is the shallow or water table monitor well. This sentence needs to be more clearly written.

91. Page 28, fourth line down from the top: The "t" in "these" needs to be capitalized.

92. Page 28, under Section 3.6.5, second paragraph, first sentence: Change to read "...chemicals will be selected for EPA's approval in...".

93. Page 29, Heading for Section 3.7.1: To be consistent with the rest of the document, the title "Soil Borings" should be underlined.

94. Page 30, first full paragraph, fourth sentence: This sentence is confusing, please reword.

95. Page 30, second paragraph, fourth sentence, eight lines down: Add to the end of this sentence "...by EPA.".

96. Page 33, Figure 3.4: This figure needs an orientation arrow identifying the northerly direction.

97. Page 42, first bullet: Change to read "...based on Federal, State and local guidance, where available...".

98. Page 44, first paragraph, fourth line down: The date of this referenced handbook needs to be included.

99. Page 44, first paragraph, third sentence: Extend this sentence to read "...at the Site in terms of current and future conditions."

If you have any questions on the above comments, please call me at (404)347-7791. Please note that this is a new telephone number.

Sincerely yours,

Jon K. Bornholm

Jon K. Bornholm
Superfund Project Manager

Enclosure

cc: Raymond Boyd
Donald Hunter
Wayne Lee
Wilson Miles
Richard Muza
Gordon Peterson